

## REMARKS

Claims 1, 5, 6, 12, 15-21, 23-28, 30-33, 35, 37 and 39 are pending. See Applicants' Amendment filed in October 2005 for a full list of the pending claims of the present application. For reasons provided herein, Applicants respectfully request reconsideration of the outstanding 35 USC 103(a) rejection of the claims of the present application. Applicants respectfully submit that the present application is in condition for allowance.

### Claim Rejections Under 35 USC 103(a)

*Claims 1, 5, 6, 12, 15-21, 23-28, 30-33, 35, 37 and 39 are rejected under 35 USC 103(a) as being obvious over U.S. Patent No. 4,927,677 issued to Kasai in view of U.K. Patent Application Publication No. GB 2295617 A of Branch and in further view of U.S. Patent No. 4,888,222 issued to Gibbons et al.*

This rejection is discussed separately with respect to the following groups of claims.

### INDEPENDENT CLAIMS 1, 6 & 15

The independent claims of the present application are directed to a laminate wall of a container for a flavored good and a method of reducing absorption of flavor molecules of the stored good into the walls of the container. The wall includes a core barrier layer sandwiched between an outer layer (which forms an exterior surface of the wall) and a further layer (which is positioned between the flavored good and the core barrier layer). The core barrier layer is ethylene vinyl alcohol or amorphous polyamide, has a thickness of less than 25 microns, and is not filled with platelets. The further layer is a non-polar thermoplastic polyolefin resin filled with 5% to 15% by weight of platelet filler. The platelet filler is high purity talc, and the further

layer has a CIE whiteness index of at least 40. Claim 15 more specifically requires the further layer to have a minimum aspect ratio of at least 5 and an average aspect ratio of from 16 to 30.

In the Office Action dated November 2, 2005, the Examiner rejects the independent claims based on Kasai in view of Branch and further in view of Gibbons. The Examiner admits that the primary reference Kasai “fails to disclose”:

- (i) “a barrier layer comprising nylon”;
- (ii) “a further layer filled with 5 to 15% talc by weight”; and
- (iii) “talc which is a high purity talc having a CIE whiteness of at least 40, an aspect ratio of at least 5 and an average aspect ratio from 16 to 30”.

With respect to the failure of Kasai to disclose a barrier layer of nylon, the Examiner states that it would be obvious to one of ordinary skill in the art at the time Applicants’ invention was made to have replaced the “biaxially stretched film of a copolymer resin of vinylidene chloride and an acrylic ester” barrier layer specifically disclosed by Kasai with a nylon barrier layer taught by Gibbons.

With respect to the failure of Kasai to disclose the further layer with talc content as low as 5 to 15% by weight of talc, the Examiner merely states, without support in any cited reference, that it would be obvious to one of ordinary skill in the art to at the time Applicants’ invention was made to vary the amount of filler, as desired. (Kasai discloses a layer of polypropylene containing talc in a precisely specified range limited to 25-35%, more preferably 30%, by weight.)

With respect to the failure of Kasai to disclose the use of high purity talc and the further layer having a CIE whiteness of at least 40, an aspect ratio of at least 5, and an average aspect

ratio of 16 to 30, the Examiner states that it would be obvious to one of ordinary skill in the art at the time Applicants' invention was made to use high purity talc as taught by Branch.

Applicants respectfully disagree with all three of the Examiner's above referenced conclusions with respect to obviousness of the present invention and respectfully request fair reconsideration.

As stated in the Applicants' previous response, Applicants' respectfully submit that a person of ordinary skill in the art using routine skill and knowledge would avoid modifying the retort container of Kasai based on the teachings of the paperboard gable-top container of Gibbons and would have no motivation for modify the retort container of Kasai according to the teachings of the paperboard container of Gibbons.

One of ordinary skill in the art learns from Kasai that not all barrier layer materials are desirable with respect to Kasai's container. On column 1, lines 40-49, Kasai states that the gas and vapor barrier properties of "these materials" (which includes, for instance, ethylene vinyl alcohol) "considerably deteriorate" and cause "gases such as oxygen to intrude into the container and the water in the food to be dissipated outside the container on the market, with the fear that the food will change in quality." Thus, Kasai specifically instructs one of skill in the art to use a barrier layer of "a biaxially stretched film of a copolymer resin of vinylidene chloride and an acrylic ester". Accordingly, one of ordinary skill in the art using routine skill and knowledge would follow the warning provided by Kasai and would utilize "a biaxially stretched film of a copolymer resin of vinylidene chloride and an acrylic ester" as the barrier layer.

The Abstract of Gibbons states that the "container utilizes a novel paperboard barrier laminate structure ... which prevents pinholes, cuts, or cracking of the barrier layers during blank

conversion, package formation, and package handling”. Also see column 1, lines 62-65, of Gibbons which states that the “object of the present invention is to produce ... a paperboard based package or carton”. Gibbons teaches one of ordinary skill in the art that certain barrier materials should not be utilized in the paperboard gable-top container/carton of Gibbons. For example, on column 1, lines 28-37, Gibbons teaches that certain materials “lack the requisite strength at high rates of deformation, namely stress cracking resistance during scoring, package formation and distribution abuse”. The materials specifically identified by Gibbons that “lack the requisite strength” include “polyvinylidene chlorides”.

Applicant respectfully submits that one of ordinary skill in the art using routine skill and knowledge would not modify the barrier layer of Kasai with that of Gibbons. The retort container of Kasai is entirely different to the paperboard gable-top carton of Gibbons and, when using routine skill and knowledge, one of skill in the art would not look to paperboard gable-top cartons for any teaching with respect to retort containers. In addition, Kasai specifically and precisely identifies a specific barrier material and warns that other materials should be avoided. On the other hand, the specific barrier material identified for use by Kasai is the same barrier material that Gibbons teaches should be avoided in paperboard gable-top containers. The teachings of Kasai and Gibbons are contradictory and one of ordinary skill in the art using routine skill and knowledge would have no reason or motivation for modifying one based on the other.

Reconsideration of the obviousness rejection is requested for these reasons.

Turning to the aspect of the obviousness rejection with respect to talc content, Kasai is specifically limited to the use of a film layer made from a blend of polypropylene with 25 wt% to

35 wt%, preferably 30 wt%, of inorganic talc filler. (See column 4, lines 59-62, of the Kasai patent). In the Office Action dated November 2, 2006, the Examiner states that Kasai “teaches the selection of the amount of talc depending on the desired thermal resistance (column 3, lines 9-17)”. In the Office Action dated May 10, 2006, the Examiner states that motivation is provided “to increase or decrease the amount of filler, as desired, in the absence of an unexpected result or critical advantage obtained from the claimed amount of filler.”

Applicants respectfully submit that there is no fair teaching, suggestion, or disclosure provided by Kasai with respect to varying the amount of filler. There is no indication provided by Kasai that the platelet-filled polypropylene layer of Kasai can have a relatively low amount of talc, 5 to 15% by weight, yet still provide the “cold proofing”, “thermal stability”, and “odor transfer” properties required by Kasai. The only amount of talc content fairly disclosed by Kasai is 25 to 35%, or preferably 30%, by weight. One of ordinary skill in the art using routine skill and knowledge would follow the instructions provided by Kasai to obtain the required properties of “cold proofing”, “thermal stability”, and “odor transfer”. One of ordinary skill in the art using routine skill and knowledge would not reduce talc content below these levels because it would be expected that the stated required properties would be eliminated.

Accordingly, there is no fair teaching, suggestion, or disclosure in Kasai to motivate one of skill in the art to decrease the amount of talc in the platelet-filled polypropylene layer disclosed by Kasai to 5 to 15% by weight. Reconsideration of the obviousness rejection is respectfully requested for at least this additional reason and/or in combination with the above stated reason with respect to the incompatibility of the Kasai and Gibbons references.

Turning to the aspect of the obviousness rejection with respect to the use of high purity talc, Branch discloses injection molding toothpaste tube shoulders having high purity talc filler for the sole stated purpose of improving gas/vapor barrier qualities of the injection molded shoulder. In contrast, Kasai utilizes a talc filler to obtain the benefits of “cold proofing”, “thermal stability”, and “odor transfer”. (See Kasai, column 7, lines 34-36, “cold proofing and thermal stability are improved and the odor of the polypropylene does not transfer to contents”.) Kasai does not rely on the talc filled polypropylene layer for improving gas/vapor barrier qualities. Rather, Kasai has a gas/vapor barrier layer of biaxially stretched film of a copolymer resin of vinylidene chloride and an acrylic ester.

Accordingly, one of ordinary skill in the art using routine skill and knowledge would find no motivation for using the high purity talc of Branch’s injection molded toothpaste shoulders in the multi-layer laminate wall of Kasai’s container. One of ordinary skill in the art is taught by Kasai that additional gas/vapor barrier qualities are not required for Kasai’s container due to the presence of the biaxially stretched film of a copolymer resin of vinylidene chloride and an acrylic ester barrier layer. In addition, the cited references fail to disclose whether or not high purity talc would provide any improvement with respect to “cold proofing”, “thermal stability”, and “odor transfer” properties.

Accordingly, reconsideration of the obviousness rejection of claims 1, 6 and 15 of the present application is respectfully requested for at least this additional reason in combination with, or without, the above stated reasons with respect to the incompatibility of the Kasai and Gibbons references and/or the failure of Kasai to disclose, suggest or teach the claimed amount of talc content.

Applicants respectfully submit that independent claims 1, 6 and 15 of the present application are patentable over Kasai in view of Branch and in further view of Gibbons for all of the above referenced reasons.

#### DEPENDENT CLAIMS 17 & 23

Claims 17 and 23 depend directly from independent base claims 1 and 6, respectively. Each of claims 17 and 23 requires the laminate to have an “additional layer of non-polar thermoplastics resin”. The “additional layer” is required to form the inner surface of the wall of the container that contacts the stored flavored good. Thus, the layers of the wall required by claims 17 and 23 of the present application are arranged in an order, from container outside surface to container inside surface, as follows: “outer layer”; “barrier layer”; “further layer”; and “additional layer”.

In the Office Action dated November 2, 2005, the Examiner rejects these claims stating that an “additional layer” is disclosed in Figure 6 of Kasai. Applicants respectfully disagree and request reconsideration.

FIGs. 3-6 of Kasai each illustrate a wall structure having a single “blended polypropylene film” (4) or a single “odorless polypropylene film” (5). Kasai’s films (4) or (5) must be interpreted as the “further layer” of the claims of the present application since films (4) and (5) of Kasai are the only layers in Kasai that are talc filled. The single “blended polypropylene film” (4) or “odorless polypropylene film” (5) of each embodiment of Kasai is required to form an inner surface of the container. See, for example, column 6, lines 23-26, of Kasai which states that the single “blended polypropylene film” (4) or the single “odorless polypropylene film” (5)

forms the “inner film of the container”. The stated reason for this positioning of films (4) or (5) according to Kasai is that it prevents odor of the polypropylene from being transferred into the contents of the container. (See column 3, lines 34-35; column 5, line 4; and column 7, lines 35-36, of Kasai.)

According Kasai fails to disclose, suggest, or teach an “additional layer” (ie., a layer or film other than the platelet filled “further layer”) that forms an inner surface of the container and is located closer to the stored flavored good than the platelet-filled “further layer” required by the claims of the present application. Reconsideration of the patentability of dependent claims 17 and 23 is requested for this additional reason.

Applicants respectfully submit that claims 17 and 23 of the present application are patentable over Kasai in view of Branch and in further view of Gibbons for all of the above stated reasons.

#### DEPENDENT CLAIMS 18, 19, 30, 31 & 33

Dependent claims 18, 19, 30, 31 and 33 of the present application require the claimed platelet-filled “further layer” to have a thickness of 5 to 150 microns, 20 to 150 microns, 10 to 70 microns, or 50 microns.

In the Office Action dated November 2, 2005, the Examiner rejects these claims stating that the thickness of Kasai’s platelet-filled layer (ie., the single “blended polypropylene film” (4) or a single “odorless polypropylene film” (5)) is recited at column 5, lines 13-19, of the Kasai patent as being 50 microns. In the Office Action dated May 10, 2006, the Examiner states that “Kasai does not disclose that the layer is non-filled.” Applicants respectfully disagree.



The thickness of the talc-filled layer in the retort container body disclosed by the Kasai patent is significantly thicker than that claimed by claims 18, 19, 30, 31 and 33 of the present application. The Kasai patent at column 5, lines 20-23, discloses a thickness for the “blended polypropylene film (4)” of 400 to 900 microns, or more preferably, 600 to 700 microns. Thus, the Kasai patent clearly fails to disclose a thickness of 50 microns for the blended polypropylene film (4).

Column 5, lines 13-19, of the Kasai patent, which is cited and solely relied upon by the Examiner to reject claims 18, 19, 30, 31 and 33 of the present application, states the thickness for the non-platelet filled polypropylene film (2), not the blended (platelet-filled) polypropylene film (4). Column 5, lines 13-19, of the Kasai patent does not provide any information on the thickness of the platelet-filled polypropylene film (4). In addition, the Kasai patent provides a clear disclosure of which layers or films are platelet-filled and which are not. One of ordinary skill in the art is clearly taught by Kasai to form a platelet-filled layer of 600 to 700 microns, not 50 microns. One of ordinary skill in the art is also clearly taught that the layers of polypropylene referenced by reference numeral (2) in Kasai are not filled with platelets. This is the only fair reading of Kasai.

Accordingly, Applicant respectfully submits that claims 18, 19, 30, 31 and 33 of the present application are patentable over Kasai in view of Branch and in further view of Gibbons for all of the above stated reasons.

### DEPENDENT CLAIMS 20, 21, 37 & 39

Dependent claims 20, 21, 37 and 39 of the present application require the “non-polar thermoplastic polyolefin resin” of the platelet-filled “further layer” to be high density polyethylene. Claims 37 and 39 (similar to claims 17 and 23 discussed above) require an “additional layer” forming an inner surface of the wall of the container and sandwiching the platelet-filled “further layer” between it and the core barrier layer. The “additional layer” is required to be “linear medium density polyethylene”.

In the Office Action dated November 2, 2005, the Examiner rejects these claims based on statements made on column 6, lines 56-60, of Kasai. In the Office Action dated May 10, 2006, the Examiner states “Kasai discloses a heat-sealable plastic film comprising polypropylene, and therefore discloses a heat-sealable film comprising filled polypropylene.” Applicants respectfully disagree.

The Kasai patent is directed to: (i) a retort container body; and (ii) a “top material”, or cover, that is secured to the mouth of the container body and that provides a tear-away lid or release sheet. For example, compare lines 1-6 of the Abstract of Kasai with respect to a retort container with lines 7-12 of the Abstract of Kasai with respect to a “top material”. Also, see column 1, lines 7-12, with respect to a retort container and column 1, lines 13-20, with respect to a “top material”; and column 1, lines 22-49, with respect to a retort container and column 1, line 50, to column 2, line 22, with respect to a “top material”. A “top material” is also discussed on column 3, lines 36-68; and column 6, line 30, to column 7, line 26. Accordingly, the Kasai

patent clearly distinguishes the structure of the retort container from the structure of the “top material” or removable cover.

As illustrated in FIG. 9 of the Kasai patent, the opening of the retort container body (10) is closed by heat sealing a sheet cover, or “top material”, (12) to the rim of the container. The structure of the sheet cover (12) is illustrated in FIGs. 7 and 8 and is discussed in detail on column 6, line 30, to column 7, line 26. The laminated structure of the sheet cover (12) does not include a talc-filled layer. Rather, it includes a biaxially stretched film (6) of a copolymer resin of vinylidene chloride and an acrylic ester, a sequentially biaxially stretched film (7) of nylon 6, a heat-sealable heat-resistant plastic film (8), and an optional biaxially stretched film (9) of nylon 6. This is the only fair reading of Kasai.

Column 6, lines 56-60, of the Kasai patent, which is cited and solely relied upon by the Examiner to reject claims 20, 21, 37 and 39 of the present application, states that the heat-sealable heat-resistant plastic film (8) of the cover sheet (12) may be plastic films made by blends of polypropylene and other polyolefins. However, this disclosure is made with respect to the cover sheet, or “top material”, (12) and not to the retort container body of Kasai. The cover sheet, or “top material”, (12) of Kasai does not include a talc-filled layer. Thus, all the other limitations of the claims of the present application are not met by the disclosed structure of the cover sheet, or “top material”, of Kasai. One of ordinary skill in the art following the teachings of Kasai learns nothing from column 6, lines 56-60, of Kasai with respect to the laminate wall structure of the present application as claimed in claims 20, 21, 37 and 39.

Accordingly, Kasai fails to fairly disclose, suggest, or teach a laminate wall structure having a platelet-filled “further layer” made of high density polyethylene and high purity talc. In

addition, for reasons already discussed with respect to the patentability of claims 17 and 23 of the present application, Kasai also fails to disclose, teach, or suggest an “additional layer” located on a side of the “further layer” opposite the core barrier layer (ie., closer to the stored flavored good). Further, Kasai fails to disclose that the “additional layer” is made of linear medium density polyethylene as required by claims 37 and 39.

Applicants respectfully submit that claims 20, 21, 37 and 39 of the present application are patentable over Kasai in view of Branch and in further view of Gibbons for all of the above stated reasons.

## **II. Conclusion**

In view of the above remarks, Applicants respectfully submit that the 103(a) rejection has been overcome and that the present application is in condition for allowance. Fair reconsideration and a favorable action on the merits are therefore requested.

Please charge any deficiency or credit any overpayment for entering this Response to our deposit account no. 08-3040.

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